THE SPEAR-BECKET, OR "DOIGTIER" OF NEW CALEDONIA, THE NEW HEBRIDES AND OTHER PACIFIC ISLANDS.

By R. Etheridge, Junr., Curator of the Australian Museum.

(Plates xvi.-xix.)

The methods of spear propulsion in use by the South Pacific Islanders must be a subject of much interest to all, accustomed as we are on this Continent to see it performed by the aid of the well-known wooden spear-thrower, or womerah, in one or other of its modifications, when any mechanical contrivance is made use of.

A leathern thong or strap known as the *Amentum* was in use amongst the ancients as a means of propelling javelins. It was "used by the Greeks and Romans, and is mentioned by Virgil, Ovid, Cicero, Livy, Pliny, and other ancient writers, and is figured on Etruscan vases; it was called $a\gamma\kappa\dot{\nu}\lambda\eta$ by the Greeks."* The amentum was fastened to the javelin shaft.

It is known to but comparatively few that both the New Caledonians and the inhabitants of at least three of the New Hebridean Islands employed a similar device to aid in the propulsion of their spears. Such, however, is the case. The object of the present paper is to describe the Ounep, Ounede, or "Doigtier" of New Caledonia, a cord or "becket" used for the purpose in question, with a passing reference to the similar implement of the New Hebrideans, and also to bring under notice what I believe may possibly be a degenerate representative from

^{*} O. T. Mason, Origin of Invention, 1895, p. 380, quoting Gen. Lane-Fox's "Catalogue," 1877, p. 40.

New Ireland. Between the *Ounep* and the *Amentum* there is this difference—the former remains in the hand of the thrower, whilst the latter was attached to the javelin.

The name Ounede was obtained by Mr. Chas. Hedley when in New Caledonia, that of Ounep I find given by Mr. J. Edge-Partington* to this implement, whilst "Doigtier" is that applied to it by the French colonists. The only other illustrations with which I am acquainted are those of Cook, Labillardière, and the Rev. G. Turner.

It is to the wonderfully close and accurate observation of that great man James Cook, R.N., that we owe our introduction to the Ounep. He first met with it in the Island of Tanna, where he had a good opportunity of becoming acquainted with its capabilities, and again saw it at Ballade, in North-east New Caledonia. He remarked†—"They use a becket in the same manner as at Tanna in throwing the dart." On one of the plates (the latter are not numbered) attached to the Account of Cook's 'Second Voyage' is the head of a New Caledonian man, surmounted by the peculiar chimney-pot hat or head-covering, and attached to this with string is an Ounep, not as an ornament probably, but simply as a means of carrying it.

To render the above extract clear, it is necessary to anticipate a little by quoting Cook's description of the Tanna implement. On this he remarks; that the Tannese "make use of a becket, that is a piece of stiff plaited cord, about six inches long, with an eye in one end and a knot at the other. The eye is fixed on the forefinger of the right hand, and the other end is hitched round the dart, where it is nearly on an equipoise. They hold the dart between the thumb and remaining fingers, which serve only to give it direction, the velocity being communicated by the becket

^{*} An Album of the Tools, Ornaments, Articles of Dress, &c., of the Natives of the Pacific Islands, 2d ser., t. 67, f. 11.

[†] Voyage Towards the South Pole, years 1772-75 (2nd Voyage), 1777, ii. p. 121.
‡ *Ibid.*, p. 81.

and forefinger. The former flies off from the dart the instant the velocity becomes greater than that of the hand, but it remains on the finger ready to be used again." This is precisely the method employed in New Caledonia, as may be seen in Pl. xviii., fig. 14, which is from a drawing made at Panie by Mr. Chas. Hedley. The only other authors who mention the New Caledonian implement known to me are Labillardière, the Rev. George Turner, Mr. T. H. Hood, and, as before mentioned, Mr. J. Edge-Partington.

Labillardière,* who during the French expedition in search of La Pérouse landed in New Caledonia, says he "admired the ingenious method they had invented to accelerate the motion of those javelins when they throw them: for that purpose they employ a piece of very elastic cord, made of the covering of the cocoa nut and fish skin, one extremity of which they fix to the end of the forefinger, and the other, which ends in a sort of round button, is twisted round the end of the dart in such a manner as to quit its hold as soon as that weapon is thrown into the air." Labillardière also figures a New Caledonian in the act of using the "doigtier."

Turner refers to the "doigtier" in connection with mortuary ceremonies.† "They set up spears at the head of a chief when they bury him, and fasten a spear-thrower on to his forefinger, and lay a club at the top of his grave."

Hood describest the dress of the natives at Port de France as consisting of a "turban of scarlet cloth, if possible; if not, of white, with a plume of feathers; a little string with a knot at the end of it, made of the fur of the Rousette, tied round the first finger of the right hand, used in throwing their spears, one of which they generally carry."

^{*} Voyage in Search of La Pérouse, &c. Translated from the French, 1800, ii., p. 255.

⁺ Nineteen Years in Polynesia, 1861, p. 452.

^{*} Notes of a Cruise in H.M.S. "Fawn" in the W. Pacific in the Year 1862, 1862, p. 215. 18

Dr. Victor de Rochas in a small work* dealing with New Caledonia, states that the natives project the spears "with dexterity to a distance of forty or fifty paces by means of a small lanière fixed to the index finger, and which is twisted round the spear at its centre of gravity." A New Caledonian is portrayed in another work† by Mr. G. L. Domeny de Rienzi in the act of spearing the beautiful New Caledonian Kagou, (Rhynochetos jubatus, V. & M.). His spear is fitted with a "doigtier."

In Mr. Edge-Partington's work one example of the becket is shown,[†] and in miniature the method of slipping it on a spear.§

Lastly, the subject of the "doigtier," according to Dr. J. B. N. Vincent, of the French navy, is to give a rotary movement to the spear.

From these extracts it would appear that the becket was made of cocoa-nut fibre and fish skin, or the fur of the New Caledonian Flying-fox or "Rousette" (*Pteropus vetulus*, Jouan).

The Australian Museum possesses twelve examples of this spear-thrower or becket, all on the same principle, but no two of which agree in details of manufacture. Of these, three form a part of the "Cook Collection," and there is every reason to believe were obtained by Cook himself. Two of the others were obtained by Mr. Hedley.

To all intents and purposes the *Ounep* consists of a plaited cord, varying in length from six to thirteen inches, having an "eye" at one end and an "over-hand" knot or a "grummethead" at the other, but the details of manufacture and the materials used are very varied.

The Cord.—This is plaited either on the plan of "square-sinnet" or "flat-sinnet," i.e., in the first the cord is so constructed as to have four angles, the sides either flat or hollowed, and in cross-

^{*} La Nouvelle Calédonie et ses Habitants, 1862, p. 185. + Océanie, ou cinquième partie du Monde, &c., 1863, iii., pl. 253. ‡ Album, loc. cit., 2d ser. t. 67, f. 11. § Ibid., 1st ser., t. 127, f. 5.

Les Canaques de la Nouvelle Calédonie, 1895, p. 87.

section would be roughly quadrangular (figs. 2 and 5); in the second the plaiting is such that the cord is flat above and below, top and bottom, but running along one of the flat faces is an extra median ridge (figs. 7 and 9). The material used for the strands seems to be tightly-twisted rush or grass, more commonly seen in the square-sinnet gaskets, or a less tightly twisted beaten-bark string, the latter having the greater flexibility. In some of them there may possibly be an admixture of coco-nut fibre, as described by Labillardière, but I have not seen one entirely composed of the Rousette fur spoken of by Mr. Hood.

The Eye is formed by returning the cord on itself, and in all but three instances the two parts are held together by a thimble, the free ends of the returned portion being plaited into three, and always three, projecting tags (fig. 8) which are invariably more or less highly ornate. Of the three exceptions, two are Cook's specimens, in which the free ends of the returned plaits are allowed to remain in a frayed condition (fig. 2). In the third example a much more ingenious contrivance is made use of, the free end of the plait being divided into two tags, which are again plaited under and over one another round the main cord and their ends knotted for security (fig. 1).

The Thimble.—I have used the term thimble to designate the band that holds the two portions of the plait together to form the eye (figs. 3, 6 and 9). It is also very variable both in width and material. In its simplest form it is broad and consists of red trade wool, which is used in three of the gaskets (figs. 4, 8 and 10), in one instance being confined purely to the thimble (fig. 4); in a second tightly wound a short distance up the cord as well (fig. 8), whilst in the third example two lengths of the wool are continued from the thimble and wound loosely over and under for half the length of the cord from the thimble proper (fig. 10). In five specimens this encircling band is composed either of the fur or woolly hair of the Rousette or Flying-fox (Pteropus vetulus, Jouan) or the latter mixed with beaten bark string. In the remaining specimens the thimbles are made of plaited rush or grasswork, similar to the cords themselves (fig. 3).

The Tags.—The tags terminating the returned portions of the cords are whipped, or not, with other material. When so, then in one case by fibre string, in others by the Rousette fur string, but in every case, whether whipped or not, are beautifully and most ingeniously ornamented by longitudinal short lengths of very narrow bright yellow grass, presenting at first sight the appearance of minute beading, and on the whole producing a very pleasing effect.

The Overhand Knot and Grummet.—The outer or distal ends of the cords, the ends that lap round a spear, are invariably terminated by an overhand knot (figs. 1, 2, 3, 6, 8, 10), or a grummet (figs. 4, 5, 7, 9, 11), and in both instances great ingenuity is displayed in their make. In the former case the end of a cord is first whipped with red trade wool or Rousette fur and then passed through a loop of its own part to form the knot, but the actual termination is often ornamented with bright yellow rushwork similar to the tags already described, and is curved upon itself so as to form a crest (figs. 6 and 8). In the two specimens previously referred to as having the free ends of the cord at the eyes left ragged (fig. 2), the overhand knots are simply tied and devoid of ornament of any kind.

The grummets seem to be made by covering the overhand knots with a cross-lacing of either Rousette fur string pure and simple, or a string partly of this and partly of fibre. They are hard and compact, and very much resemble the string-coated head of a life preserver (figs. 4, 5, 7 and 11).

The Collar.—The only other object on the gaskets remaining to be described is what, for the want of a better term, I have called the collar. It occurs on six out of the twelve specimens, and is placed on the main cord of each gasket immediately below the tags of the eye (figs. 4, 5, 6, 7, 9, 11). It can be best described by comparing it to the butt or body of an ordinary window blind tassel. The simplest form consists of Rousette fur string wound round and round (fig. 6), but in other instances (figs. 4, 5, 7, 9, 11) it resembles the butt referred to, and is variously ornamented with bright yellow rush or grass string similar to that on the

tags. The patterns are interlaced vertical lines or conjoined rhombs.

Suspended Ornaments.—The finest gasket in the collection is without doubt the large flat-sinnet thrower obtained by Cook (fig. 11). The end of one of the tags has a couple of twisted strands of the Rousette fur string binding left free as a small terminal loop. Suspended to this by fibre string are three objects, consisting of two thick beads of Kauri gum and a carved bone ornament. Three reasons may be advanced for believing these to be genuinely a part of the gasket in question-1st, the presence of the loop at the end of the tag, ostensibly provided for some purpose or another; 2nd, the fact that the beads resemble in shape certain stone beads on New Caledonian necklets at present in the Museum; and 3rd, that Labillardière states that the New Caledonians carved bone ornaments, which were suspended to necklets. On the other hand, against this last point is Labillardière's statement that bone ornaments of this kind were "indifferently carved." That on the Cook gasket is by no means so, and therefore it is quite within the range of possibility that this appendage may have been subsequently added. Personally I do not think so, for the whole appearance of the suspended objects seems to be genuine.

The only deviation from the structure of these New Caledonian spear-throwers that has so far come under my notice is the figure given by Mr. J. Edge-Partington, representing one with a grummet at both ends, instead of a loop at one and a grummet or overhand knot at the other.*

We may now pass on to a brief consideration of the occurrence of a spear-becket on other South Pacific islands, but at the outset I regret to say that the information at my command is very limited.

The first reference is to the island of Tanna, in the New Hebrides. Cook's statement has already been referred to, but the Rev. G. Turner, a New Hebridean missionary, figures† a

^{*} Album, loc. eit., 2d ser., t. 67, f. 11.

[†] Nineteen Years in Polynesia, 1861, p. 81.

square-sinnet implement, with five tags to the eye and a thimble, but no collar, whilst the overhand-knot has a free end instead of being incurved to form a crest. Mr. Turner, speaking of coconut shell armlets, says—"They wear one, two, three, and sometimes half-a-dozen of these on either arm, close above the elbow, and from them they suspend their spear-thrower and sling." Mr. Hedley has been good enough to reproduce Mr. Turner's illustration (fig. 12).

The spear-becket is also known on Aneiteum, another of the New Hebridean Islands, judging in the first instance from the following remarks of a second missionary, the Rev. A. W. Murray, who in describing the death of a native of that island says*—
"As soon as life was extinct the body was laid out on a mat and a spear and a club placed by its side; also the small noose which is used in throwing the spear was placed on the forefinger of the right hand."

I am under obligations to the Rev. J. H. Lawrie, late of the Free Church of Scotland Mission in the New Hebrides, for the loan of a spear-becket he obtained whilst residing on Aneiteum, represented in fig. 13, also drawn by Mr. Hedley. It is of very simple construction, nine inches long, of a round cord made of plaited rush or grass, a knot at the distal end, and an eye at the proximal, the plait of the latter being more or less flattened, and without any collar, thimble, or tags. It will be observed that the Tanna becket figured by Mr. Turner and that lent me by Mr. Lawrie from Aneiteum differ greatly in construction.

Yet a third island of this group seems to have possessed a spear-becket, for in referring to Vate, Efate, or Sandwich Island, Mr. J. E. Erskine remarks†—"From a village . . . a canoe pushed off to intercept us as we were working in, one of the three men occupying it handing up a becket of plaited cord, such as we had seen in the hands of the Tannese for throwing their spears."

^{*} Missions in Western Polynesia, 1863, p. 51.

[†] Journal of a Cruise among the Islands of the W. Pacific, 1853, p. 323.

The Rev. J. Watt Leggatt, of the Amy Gertrude Russell Mission at Aulua, Mallicollo, says his natives do not use a spearthrower. (Letter to Mr. S. Sinclair, Ap. 27, 1899).

I have now traced the occurrence of this remarkable implement from New Caledonia to three of the New Hebridean Islands, or vice versa as the case may be, for in the present state of our knowledge it is impossible to say on which it originated.

The spear-becket does not appear to be in use in the Solomon Islands, Dr. H. B. Guppy, R.N., having failed to find any trace of it in that group. He says*—"None of the contrivances for assisting the flight of the spear, such as the throwing-stick or the amentum, were employed by the natives of the islands we visited."

Whether or no it occurs in the Admiralty Group is still an open question, for I am unable to find any published evidence of the fact; on the contrary, such as does exist is in the negative. In the "Challenger Narrative"† it is said—"Their only weapons are lances or spears of several kinds, which are thrown with the unaided hand, not even with a cord as in New Caledonia." It must not be forgotten, however, that the "Challenger" Expedition remained but a brief period off the Admiralty Islands, and the members may have failed to notice so small an implement. On the other hand, Mr. R. Parkinson, of Ralum, Blanche Bay, New Britain, a well known contributor to German Ethnological literature, and a traveller of wide range in the South Pacific, assures me that some contrivance of a cord or sling-like nature for spear propulsion does exist amongst these islanders, although he is not acquainted with details of its construction.

A form of spear-thrower was in existence amongst the Maoris. Mr. W. P. Reeves in a recent work[†] says, "With help of a throwing-stick, or rather whip, wooden spears could be thrown in the sieges [of pahs] more than a hundred yards." Confirmation

^{*} Solomon Islands and their Natives, 1887, p. 72. + Challenger Narrative, i., Pt. 2, p. 718.

[†] The Long White Cloud, Ao-tea-roa, 1898, p. 48.

of this statement is to be found in a paper* by Dr. von Luschan. who quotes Professor Bastian't to the effect that a specimen of the hurling implement of the Maoris was deposited in the South Kensington Museum, London. It is, however, in a paper by Mr. Coleman Phillips‡ and through the labours§ of Mr. A. Hamilton, of Otago, that we gain a fuller knowledge of a spear-propelling medium in New Zealand. The Kotaha, as it was called consisted of a sling-stick "with a hole at one end, through which was passed a dog-skin thong, knotted at both ends." The distal end of the thong with its knot was passed round the arrow, or dart, much in the same way as the New Caledonian Ouner was round the spear. "The darts were stuck loosely in the ground . . . at a proper inclination before the thong was attached"; this attachment "was necessarily such as to give a strong strain, or pull, during the throw, whilst admitting of instant release when the arrow was ready to commence its free flight." It may be likened to the Fustibalus or staff-sling of olden times, "a common sling attached to the end of a shaft and used for heavier stones." | Mr. Phillips points out that the New Zealand implement has now degenerated into a toy.

Just as that sacred and venerated implement the "Bull-roarer" or "Whirler" of the Australian black is represented in the boyhood games of Britain, so, strange as it may appear, is the becket of the South Pacific. Mr. E. R. Waite informs me that amongst boys in Yorkshire a somewhat similar sling is used for the propulsion of sticks and reeds. A young friend of Mr. Waite's, Master Allan McCulloch, has called my attention to a short article on "Throwing Sticks" by Mr. S. Gibney in the "Boy's Own Paper" in which this very child's amentum is described.

^{*} Das Wurfholz in Neu-Holland und in Oceanien. Bastian-Festschrift, 1896, p. 131, note 1.

[†] Inselgruppen in Oceanien, p. 199. ‡ Trans. N.Z. Inst. for 1877 (1878), x., p. 97. § Illustrations of Maori Art, Pt. 3, 1898, p. 244, f. 2. | Mason, loc. cit., p. 381. ¶ The Boy's Own Paper, 1892, xiv., p. 574.

Mr. Gibney says—"The string should be of medium thickness, firmly twisted but not stiff. Take a piece of this, a little over a foot in length, and make a knot at one extremity, and your throwing apparatus is ready. When you wish to make a throw, twist the knotted end of your string round the wand, some inches from the end, winding some of the other end of the string round your hand until the string being tight, you can hold the wand about the middle. By adjusting the string, as shown in fig. 3,* placing the long end over the knot, you will make it grip the wand perfectly tightly as long as you keep the string taut. But the moment it is slackened, as it is when that part comes over your hand in its discharge, it comes undone and leaves the wand of itself. The string acts the part of the throwing stick."

I now pass on to a subject of equal importance, but of a rather speculative nature, and would guard the reader against accepting the following suggestion as anything more than a statement of opinion, as I am not in possession of any positive evidence to support it. Three spears in the Museum Collection, made of a fine palm wood and beautifully ornamented towards the butts with string lashing, are provided at or about the point of equipoise with a number of free hanging strings (figs. 16-18), terminating in small tassels. The spears are respectively seven and a half feet and six and a half feet long, and the longer are butted with the tibias of the Island Cassowary or Mooruk (Casuarius Bennettii, Gould); the shorter one is all wood. The tassel strings are three, four and five inches long, but the first has obviously been much worn. Above the butts all three spears are elegantly ornamented with string lacing, which in each case projects forward in two sharp points, one on either side of a spear, with v-shaped indents between. These portions are all highly ruddled. Mr. J. Edge-Partington figures; one of these spears with a tassel, purporting to come from New Britain, but in all probability it is from the same neighbourhood as the present weapons. He does

^{*} Fig. 15 of this Paper. † Album, loc. cit., Ser. 1, t. 252, f. 9.

not make any particular reference to it. The point I wish toemphasise is that the tassels are at the point of equipoise, and on
grasping either of them by certain of the fingers, its strings and
tassels, when held between or around the remaining fingers,
would, it seems to me, enable a much stronger and steadier
impulse to be given to the spear in its flight. If my assumption
should prove to be correct, it is then naturally followed by the
question which of the two, the string and tassels or the Ounep, is
the more archaic? The former I suspect. On showing these
spears to Mr. R. Parkinson, already favourably referred to, he at
once said that they came either from the northernmost part of
New Ireland or New Hanover, and authorised me to say that the
suggested use of the string and tassel is probably the correct one.

Mr. Parkinson further described to me another contrivance, probably intended to assist in spear propulsion, that he had seen on the islands off Dalman Harbour, German New Guinea. This consisted of a short spike or peg fastened to a spear at the point of equipoise, and directed obliquely backwards, *i.e.*, towards the butt of the spear. Although not seen in actual use, he supposes this to have been a finger catch, or cleat, to enable the thrower to obtain a secure and at the same time a lighter grip of the spear than would be given by grasping it in the usual way.

DESCRIPTION OF A NEW PARDALOTE, ITS NEST AND EGGS FROM VICTORIA.

By Robert Hall.*

(Communicated by the Secretary.)

^{*} Paper withdrawn, as a comparison of the specimens of the supposed new species with a series of specimens of *P. assimilis*, Ramsav (*P. astimis*, Temm., subsp. assimilis, Ramsay, according to Dr. Sharpe) in the Australian Museum, showed it to be a phase of this bird, not previously recorded from Victoria.—Ed.